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BY J. B. S. JACKSON, M.D.

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REVIEW

OF

DR. M. GAY'S STATEMENT OF DR. CHARLES T. JACKSON'S CLAIMS
TO THE DISCOVERY OF THE INHALATION OF SULPHURIC
ETHER, AS A PREVENTIVE OF PAIN.

15582
BY J. B. S. JACKSON, M.D.

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It is certainly very remarkable, considering the number of articles and pamphlets that have been published upon this great discovery, that scarcely anything has appeared in the name of Dr. Jackson; and it is not surprising that he should thus be deprived of much of the credit to which he is entitled. And even now, when a full statement is for the first time made of his claims, it comes not from himself. Dr. J. felt, when the discovery was first made known, that his claims could not be questioned, and that those with whom he was concerned, would, without his demanding it, give him full credit; but it was not so, and from that time his mind has been so harassed by misrepresentations and false statements in regard to the case, that he has felt no inclination to do what he should have done more than six months ago. Dr. Martin Gay, who has now published a vindication of Dr. Jackson's claims, has been for many years a warm personal friend of Dr. J., and he has generously, and of his own accord, come forward to state his case and plead his cause; after a long and laborious investigation, and a tedious sifting of all the facts, he has given a full exposition of the whole subject, and has added, in an appendix, the testimony upon which it is founded; and it is to be hoped, in justice to the cause of friendship and of science, that it will be attentively read and considered.

Dr. Gay shows, by the testimony of Mr. Bemis, a most respectable

dentist of this city, that Dr. Jackson had conceived the plan of preventing pain in surgical operations by some direct and new agent, as long ago as the year 1842. Mr. B. remembers and testifies, also, to a remark made by Dr. Jackson at that time, that he had tried this agent successfully upon himself after some accident, and he has no doubt that sulphuric ether was the means referred to. His operations, however, fortunately for his patients, are so far painless, that he did not feel any urgent need of the means referred to by Dr. J., and so did not burden his memory particularly with the fact. Dr. Wm. F. Channing, however, states that he had on several occasions heard Dr. J. speak of the inhalation of sulphuric ether, as a means of producing insensibility to pain during surgical operations, and that his impression is very strong that the earliest communication on this subject was in the year 1842, Dr. C. being on a geological survey with Dr. Jackson, when the above remarks were made to Mr. Bemis.

Another important point that is dwelt upon by Dr. Gay, is Dr. Jackson's use of the sulphuric ether to relieve the very urgent distress which he experienced after an accidental inhalation of chlorine gas; a distress, which was quite as agonizing, as every chemist must know, as the pain inflicted by the surgeon's knife. This was in the winter of 1841-2, and the relief which he experienced was such as to produce in his mind a strong conviction, that the pain of a surgical operation might be relieved in the same way; the insensibility to the painful effects of the chlorine coming on, according to Dr. Gay, before the unconsciousness, and continuing for a time after it had passed off. Dr. Wm. F. Channing, a student of chemistry with Dr. J., and a son of the late Rev. Dr. C., afterwards met with a similar accident, and, as is shown in his testimony, inhaled the sulphuric ether with an equally good effect. Previously to the first of these trials, Dr. J. had inhaled the ether with a view to observe its physiological effects, being perfectly aware of its having been often used as an intoxicating agent, and of the danger which was supposed to attend its use if carried to the degree of unconsciousness. For this experiment under such circumstances, and for having discovered the laws of the insensibility or unconsciousness, which is produced by the inhalation of sulphuric ether, as a matter of science, and independently of its application to surgery, Dr. Jackson is entitled to the highest credit.

Dr. Gay then goes on to refer to the testimony of Mr. Joseph Peabody, than which nothing could be more conclusive and satisfactory. Mr.

P. is a student of chemistry with Dr. Jackson, and in the month of February, 1846, was about to have two of his teeth extracted. The idea of trying the powers of mesmerism having occurred to him, Dr. J. dissuaded him from it, and, in so doing, used an expression the strength of which is remarkable. "If you want to have your teeth extracted without pain," said he, "I have mesmerism bottled up, in the other room," and then told him of the sulphuric ether, of its effects, and how it should be used. Mr. P. would have used it, and was preparing some for that purpose at his father's laboratory in Salem, when his father remonstrated so strongly against it as a dangerous experiment, that he abandoned the idea; otherwise the whole discovery would probably have blazed forth a year ago.

Dr. Jackson, then, believed fully in the power of the sulphuric ether as a preventive of pain, when Mr. Morton called at his laboratory last September to borrow a gas bag; this he intended, as he said, to fill with atmospheric air, and giving it to a patient to inhale, he hoped thus to act upon her imagination, and induce her to submit to the extraction of a tooth. Dr. J. dissuaded him from this attempt, and, after some conversation, communicated to him his ideas in regard to the ether. Mr. M. was evidently entirely ignorant of the article, and even of its physical properties, as Dr. Gay shows. He asked a great many questions, and showed a great unwillingness to try it, but at last agreed to do so, Dr. J. giving him particular directions as to the mode of applying it, and telling him what was to be expected. Mr. Morton accordingly made the trial, and the result we all know. Having stated these facts, Dr. Gay goes on to remark that Mr. Morton acted merely as an agent of Dr. J., and shows that "the credit to which he is really entitled, is that of faithfully performing, according to his instructions, a mechanical part in an experiment of Dr. Jackson's." Dr. J., of course, never denied that Mr. Morton first used the ether successfully in a case of dental surgery; but inasmuch as this was done under Dr. J.'s direction, and by a person who was totally ignorant of the subject, the whole responsibility in the case, and the credit or discredit which might grow out of it, belonged exclusively to Dr. J., who must be considered not merely as the discoverer, but as having made the first application in the proper sense of the term. If Dr. Jackson, however, is to receive the credit of the discovery, as a scientific man, let Mr. Morton have all that belongs to him for the perseverance which he showed in the case, acting under Dr. Jackson's directions, and supported by many successful experiments, but liable to be discour-

raged by repeated failures, and the bad consequences which not unfrequently resulted from his reckless use of the new agent. And here it may be remarked that the title usually given to Mr. Morton has been withheld, as an act of justice to those gentlemen in his branch of our profession who have devoted their time, and expended their money, to acquire the information which would enable them to obtain a medical degree.

Dr. Jackson has been very much blamed for not giving to Mr. Morton more credit in his letter to M. Elie de Beaumont, which was read to the French Academy ; a second and a private letter, however, was at the same time sent to his correspondent, in which he gave a full history of the discovery, awarding to Mr. M. all the credit that had, at that time, ever been claimed for him, and acknowledging fully the important suggestions that others had made in regard to the construction of the instrument which was to be used in the inhalation of the ether. But Dr. J. had observed the position which Mr. Morton had already taken towards himself, in regard to the discovery, and he accordingly, in the letter above alluded to, stated simply what concerned himself in the discovery, that he had become convinced by experiments and reflection upon the subject that the inhalation of ether would render one insensible to pain, that he had induced a dentist of this city to use it, and that the result was as all the world knows it to have been. Dr. J. has been severely criticised for the use of the term "induced" in that letter, but of all terms it was the most fit. He did not call upon Mr. M. to make known his discovery and request him to make a trial of it, it is true ; it was in Dr. Jackson's office that Mr. Morton received the important information. But what did Mr. Morton call upon Dr. J. for ? Not for sulphuric ether, certainly ; not for the nitrous oxide, not for a means of any sort to prevent the pain of the operation which he was about to perform ; his plan was entirely different ; it was simply to act upon the imagination of his patient, and he called upon Dr. J. to obtain the means which would enable him to carry his object into effect. From this Dr. J. dissuaded him, and after much time had been spent, and the strongest assurances had been given of the safety of the inhalation of the sulphuric ether as a means of preventing pain, Mr. M. was "induced" to try it, and his distrust and the unwillingness which he showed to receive the idea, fully justified Dr. J. in the use of the term in question. And, to refer to another point, that strong persuasion was used by Dr. Jackson to induce Mr. Morton, after his first experiment, to bring the subject be-

fore the Surgeons of the Massachusetts General Hospital, is abundantly proved by the testimony which Dr. Gay has brought forward, Mr. Morton, when he did so introduce it, representing it as his own discovery, and giving to Dr. Jackson, as appears by a published letter of Dr. J. C. Warren, none of the credit which belonged to him.

Dr. Gay, then, having shown the object of Mr. Morton's visit to Dr. Jackson, remarks in another place upon Mr. M.'s experiments with chloric ether. Witnesses have testified to the fact of Mr. M.'s having used "ether" by inhalation, in the summer of 1846, and, although the only one who specifies the kind of ether used, speaks of it as the "chloric of ether," Mr. M.'s agent has the boldness to assert in his pamphlet that Mr. M. had been experimenting with sulphuric ether. There is no reason whatever to suppose that Mr. Morton had ever seen sulphuric ether before Dr. Jackson showed it to him, and, as to the idea of inhalation, he was probably indebted for that to his former partner, Mr. Wells.

The claims of Mr. Wells are very satisfactorily answered by Dr. Gay. That gentleman was undoubtedly, according to his statement, on the very verge of making the grand discovery, and even went so far, in Nov. 1844, as to use sulphuric ether in the case of a surgical operation; but, although he does not say so, the experiment must have been unsuccessful, as he was advised, in preference to this, to continue the use of the nitrous oxide, with which he had previously been operating with some success as a dentist. This operation, he it observed, was performed two years after Dr. J.'s communication to Mr. Bemis. Dr. G. alludes to Sir H. Davy's having suggested the use of this gas in small operations, and he refers to a case in which it was also tried several years since, by some of the Cambridge students, the result being such as might have been expected; this gas, from the violent excitement which it often produces, is totally unfit for surgical purposes, and Mr. Wells might, therefore, be welcome to the discovery, even if he had been the first person to use it. Mr. W. claims to have been the originator or discoverer of the idea of preventing pain by the inhalation of any gas whatsoever, because he had been searching for some means to produce this effect, and had in a few cases operated successfully with nitrous oxide; but such a claim, at this late day, is perfectly preposterous, and, as Dr. Gay remarks, sulphuric ether was virtually excepted by Mr. Wells, after the experiment above alluded to; nitrous oxide, if it ever had any repute, would probably soon have been forgotten, had it not been for the discovery of sulphuric ether, and

the very slight connection between these two substances—a connection which may truly be called gaseous.

Dr. Gay alludes to the censure which Dr. Jackson has incurred for having so long delayed to communicate his discovery to the world, and the inference, that, although he may have had, for a long while, a floating idea in his mind of the fact, he could not have fully believed in the powers of the ether; but the testimony which is offered, proves that such was the fact, however it may be explained, and it cannot be imagined that after being once conceived, as it was by Dr. J., the idea could ever have been lost sight of. In his communication to Mr. Morton, Dr. J. did nothing more than what he had done several times previously, and would undoubtedly have done again. The man of science often discovers, in his closet or laboratory, some new fact or principle, which, when applied, will be of inestimable value to mankind; and it but too often happens, from the peculiar constitution of scientific minds, that he, to whom the world is most indebted, reaps but little benefit, and in many cases fails even to secure to himself the honor of the discovery. Now after it has been shown that Dr. Jackson had been long possessed of the idea of preventing pain by the inhalation of sulphuric ether, and that it was first successfully applied under his directions, will any one allege that too much has been claimed for Dr. J. as a discoverer? Shall that honor, which is all that he claims, be denied to him, because he did not make known his discovery in the most proper manner? Dr. J. states that he did communicate it to several of his friends, but unfortunately for his case, he cannot say to whom, and it was only accidentally that he heard of Mr. Bemis's recollection of their meeting in the year 1842, and of what passed between them on that occasion, Dr. J. himself having entirely forgotten that he had ever spoken to Mr. B. upon the subject of a preventive of pain in surgical operations. This is a single case, and there may be many others, which may yet become known.

Further, it has not merely been questioned whether Dr. Jackson really believed in the sulphuric ether as a preventive of pain before he communicated the idea to Mr. Morton, but it has been said, and by many persons believed, that even after it had been in use for some time, he doubted its powers. This would seem to be impossible, when we consider the strength of his conviction previously to the first experiments in surgery, and the overpowering evidence that was every day accumulating in favor of the new agent. There cannot, in fact, after the testimony of

Mr. Peabody, and the recollection of many of Dr. Jackson's friends, be a doubt "that he has continued," as Dr. Gay remarks, "unfaltering in his belief in the safety and ultimate success of the application"; he has, of course, as Dr. Warren and many others have done, often spoken of the caution necessary to ensure the efficacy and the safety of the application, and without doubt some remark of this sort was misunderstood, and gave rise to the report now alluded to.

Dr. Jackson has been much blamed for having published in the *Daily Advertiser* a statement of his claims, which, from its address, would seem to have been already communicated to the American Academy, when, in fact, it was not read before that body until the evening of the following day. He was desirous, it has been said, of giving greater effect to his article, by bringing it out under the sanction of the Academy. Now the article in question was hastily prepared, and was expressly intended to be sent to Europe by the steamer of the first of March, with a view to correct the unfavorable impressions which had gone abroad in regard to his claims; but, inasmuch as he had been requested to make a communication upon the subject to the Academy, his intention was, to read the same article before that body, and he addressed it accordingly, having no doubt that he had a right, so far as the Academy was concerned, to publish his article before it was read, and certainly having no intention of giving to the public the idea that the Academy had sanctioned his claims, the circumstance of the address, which certainly requires an explanation, being entirely accidental, and owing to the haste with which the article was prepared.

With regard to the patent, Dr. Gay shows that Dr. Jackson reprobated the idea as strongly as any one, that he has never before taken such a course in respect to any scientific discovery, and that in the present case he felt himself compelled to adopt it, being informed that Mr. Morton could and would take out a patent in his own name, and claim the whole discovery, if Dr. J. did not join him. The Dr., therefore, in an unfortunate moment, signed the petition with Mr. M. for a patent, as a joint discoverer, and with a view merely to have his name legally connected with it, Dr. J. understanding that the patent was to be made out in the name of Mr. Morton, and that he was to be the sole proprietor. If it was settled, however, that the patent would be applied for, and that Mr. Morton would, if he could, make money out of it, certainly Dr. J. had a right to expect him to pay a proper fee for the professional advice

which enabled him to do this ; he charged him, therefore, five hundred dollars, but afterwards changed it to ten per cent. on the receipts, Mr. M. saying that he might, perhaps, never make the above sum by it. Dr. Jackson deeply regrets that he ever had anything to do with the patent ; and this hasty and very imperfect notice of his claims as a discoverer, may be concluded by stating, on Dr. Gay's authority, that he never has received any pecuniary advantage from the patent, that he never will receive any, and that he has destroyed the bond given to him, according to which Mr. M. was to have paid to him a certain per centage of the profits that might be derived from the sale of the patent right.

